

**CONFIRMATION OF THE NEOTROPICAL COCKROACH  
*PLECTOPTERA PICTA* SAUSSURE AND ZEHNTNER  
IN THE UNITED STATES (BLATTODEA; BLATTELLIDAE)**

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*Abstract.*—*Plectoptera picta* is a small neotropical cockroach reported to have been introduced to the United States prior to 1917. Because the specimens were only partially labelled, the United States record was discounted. However, recent collections have verified its presence in Texas, Louisiana, Virginia, and North Carolina. It is easily distinguished from *P. poeyi*, a south Florida species, by its darkly colored pronotum and its reddish-brown face with a horizontal ivory colored band between the eyes.

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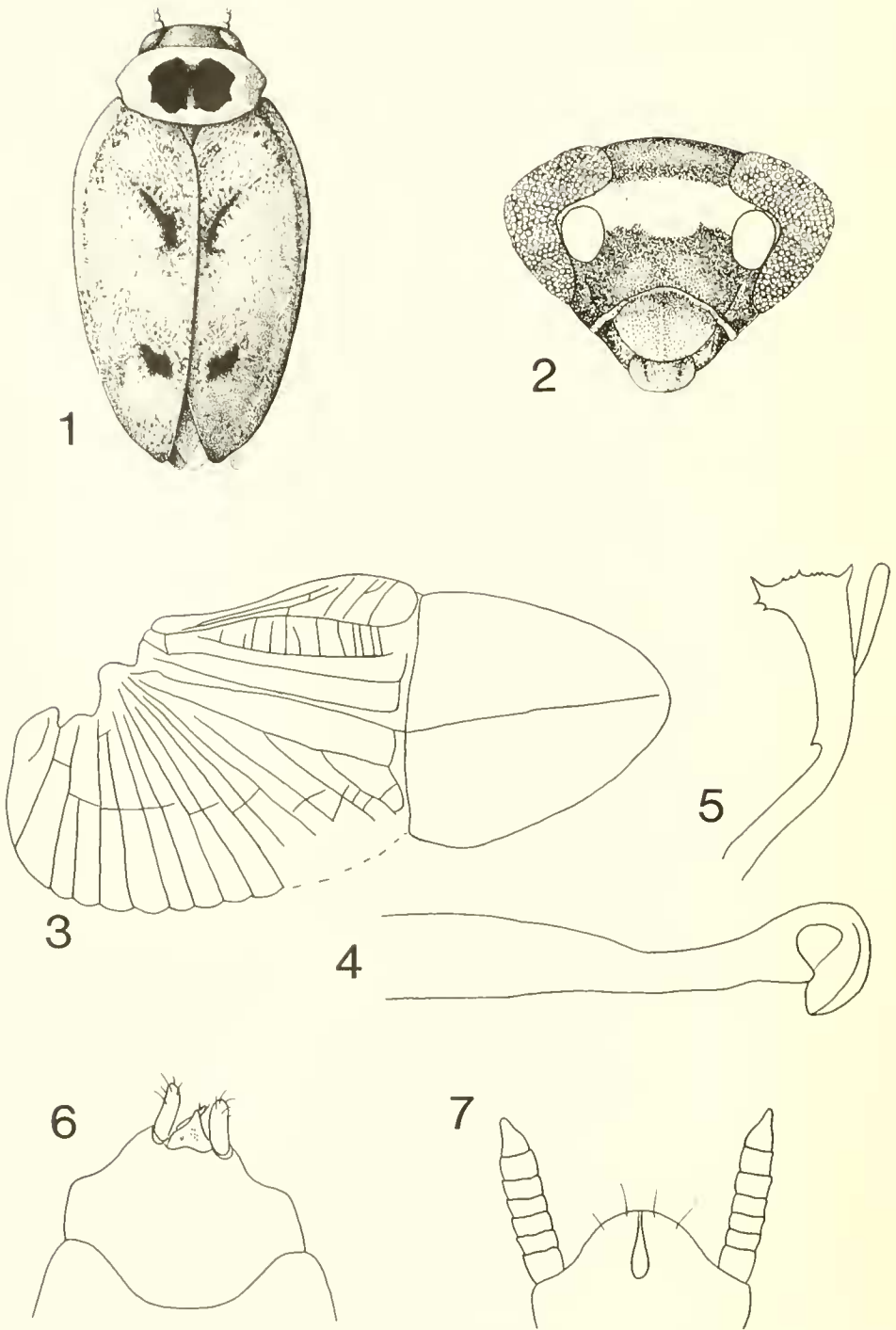
*Plectoptera picta* Saussure and Zehntner is a small, distinctly marked cockroach that has been collected only rarely. It was described by Saussure and Zehntner (1894) from Veracruz, Mexico. Rehn (1903) subsequently reported it from Costa Rica. It was also reported from Texas and Virginia (Caudell, 1913), but its occurrence in the United States was later questioned and discounted (Hebard, 1917; Princis, 1965), because of partial or incomplete labeling of the specimens.

Recently several additional specimens have come to our attention, which demonstrate that *P. picta* is in fact established in two disjunct areas of the United States. In 1971 a male *picta* was collected on the campus of Louisiana State University, Baton Rouge, La., and sent to A. B. Gurney for identification. At about the same time Gurney received several specimens of the same species collected in light traps in North Carolina. Since that time five additional specimens have been collected in Louisiana and North Carolina, prompting us to present the following diagnosis to facilitate identification of this species.

*Plectoptera picta* (Fig. 1) is a small cockroach, about 5.5–6.5 mm long. It is silvery-gray with an overlying reddish mottled pattern on the tegmina. The pronotum is dark reddish brown or black with an irregular white or buff border. The head and body are dark brown; a distinctive buff colored band extends across the face from the compound eyes to the midpoint of the antennal sockets (Fig. 2).

The tegmina barely overlap, presenting more the appearance of beetle elytra than dictyopteroid tegmina. The resemblance is so close that the collector (a coleopterist) of the most recently collected specimen presumed that he had collected a small hydrophilid beetle. The apex of the hindwing (Fig. 3) has a large intercalated triangle composed of two large cells occupying nearly half the area of the hindwing (exclusive of the anal lobe).

To establish the identity of this species, we compared the genitalia of the holotype of *P. picta* with males from Texas and North Carolina. The right phal-



Figs. 1-7. Morphological features of *Plectoptera picta*. 1, Habitus, dorsal view (specimen from Bertie Co., NC. Scale is 2 mm). 2, Head of same specimen, frontal view. 3-6, Holotype. 3, Right hindwing. 4, Right phallomere (R2). 5, Left phallomere (L2d). 6, Subgenital plate. 7, Female subgenital plate of specimen from Bertie Co., NC.

lomere (R2, see McKittrick, 1964) of the holotype (Fig. 4) bears a stout subapical lobe; the inflated apex of R2 recurves strongly to this lobe. The apex of the left phallomere, L2d, is broadly truncate, armed along the apical margin with about 11 spines, those at the edges being longer and stouter than the more centrally located spines. The shapes of the subgenital plates of the male and female are as in Figs. 5 and 6. Externally all specimens agree in general with the holotype, differing mainly in degree of pigmentation of the overall body markings and in the degree of spination of the left phallomere.

There are numerous species of *Plectoptera* in Central America. The species *pulicera* Saussure and Zehntner, *circumdata* Saussure and Zehntner, and *circumcincta* Saussure and Zehntner are figured in Saussure and Zehntner (1894), and their color patterns are distinctly different from *picta*. The holotype of the Costa Rican species *hastifera* Rehn—a male, not a female as Rehn stated (1903:281)—also differs markedly in color from *picta*.

There are 11 West Indian species of *Plectoptera*: *dominicæ* Rehn and Hebard, *dorsalis* (Burmeister), *infulata* Rehn and Hebard, *insularis* Princis, *lacerna* Rehn and Hebard, *perscita* Rehn and Hebard, *poeyi* Saussure, *porcellana* (Saussure), *pygmaea* (Palisot de Beauvois), *rhabdota* Rehn and Hebard, and *vermiculata* Rehn and Hebard. All of these species have different color patterns from *picta*.

The only other species of *Plectoptera* occurring in the United States is *poeyi*, which is limited to Key West, Florida, and Cuba (Rehn and Hebard, 1927). This is a glossy, uniformly translucent yellowish species which because of its color is unlikely to be confused with *picta* (Zayas, 1974). Candidates more likely to be confused with *picta* are *Compsodes schwarzi* (Caudell), *Chorisneura texensis* (Saussure and Zehntner) (see Helfer, 1963: 58–59), and another recently introduced cockroach, *Ectobius sylvestris* (Poda) (Hoebeke and Nickle, 1981). *Compsodes schwarzi* and *E. sylvestris* also have a dark pronotal disc with pale, lightly colored margins. *E. sylvestris* also shares the well-developed intercalated triangle of the hindwing but lacks the light colored facial band. *Chorisneura texensis* has a smaller intercalated triangle and is uniformly glossy yellow, lacking the dark brown pronotum found in *picta*.

Whether *picta* is an uncommonly collected native species or a recent adventive introduction into the United States cannot be determined for certain, but, considering its occurrence in Costa Rica and Mexico and its apparent disjunct distribution in the United States, it seems more likely to be an introduction. *Plectoptera picta* is an outdoor species and, so far as known, is unlikely to be a domiciliary pest.

Specimens examined. 7 ♂, 5 ♀. Holotype, ♂: MEXICO: Veracruz, Atoyac [BMNH]. COSTA RICA: Cartago, Turrialba (Tristan) 1 ♀ [NMNH]; Tucurrique (Schild & Burgdorf) 1 ♀ [ANSP]. UNITED STATES: LOUISIANA: West Baton Rouge Par., Baton Rouge IX-1971 (Elaine Cox) LA-72 1 ♂ [LSU]; St. John the Baptist Par., Edgard VIII-26-1975 (V. Brou) 2 ♂ [NMNH, FSCA]; NORTH CAROLINA: Edgecombe Co., Tarboro, at Tar R. IX-18-1982 (W. E. Steiner) 1 ♀ [NMNH]; Bertie Co., Lewiston IX-8-1971 (light trap) (W. R. Baker, Jr.) 1 ♂, 1 ♀ [NCS, NMNH]; Warren Co., E. of Ridgeway, road 158 field W-5 NW Dare soybeans VIII-30-1979 (W. C. Warrick) (sweeping soybeans) 1 ♂ [NMNH]; VIRGINIA: "Virginia only" 1 ♀ [ANSP]; TEXAS: "Texas only" 1 ♂ [NMNH].

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